

FIGURE 1

2009020" 5548900T

203020" 65489001

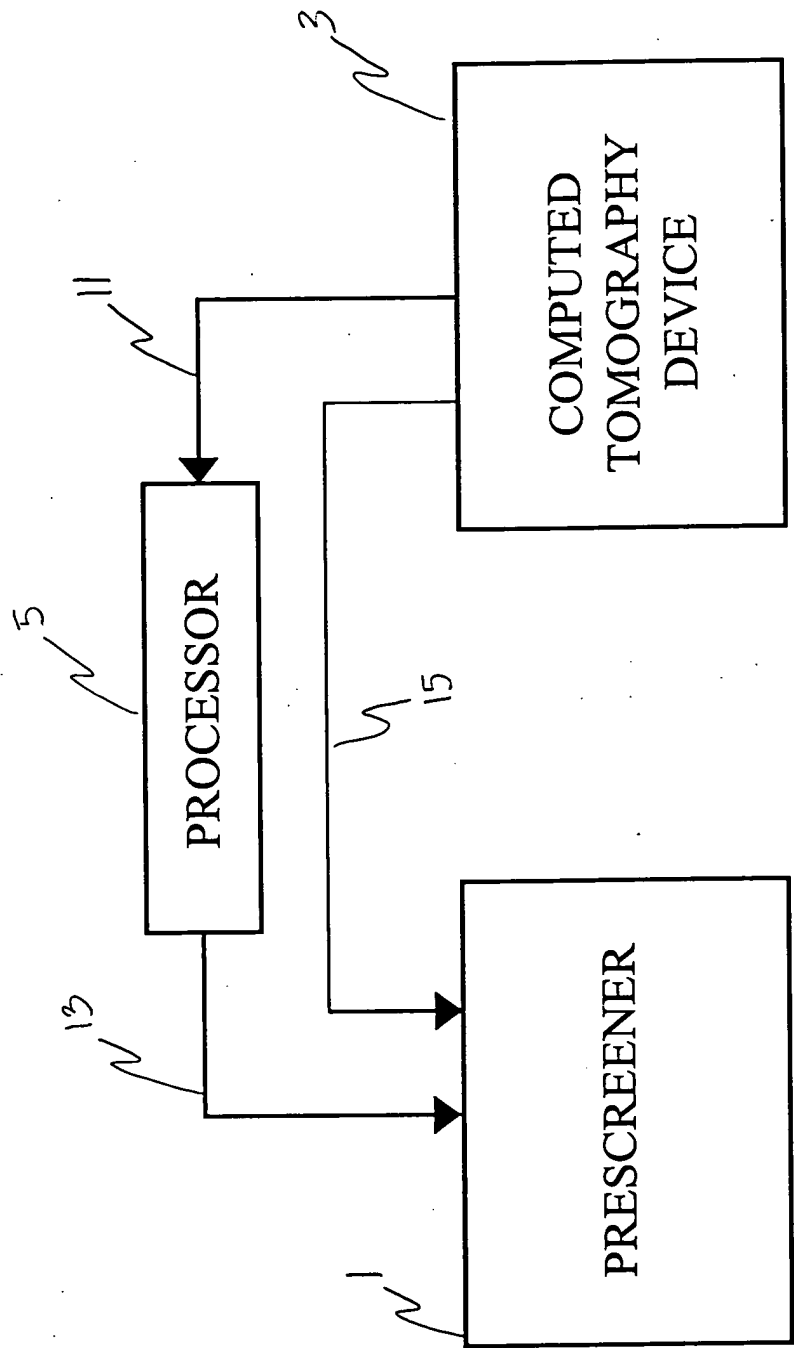


FIGURE 2

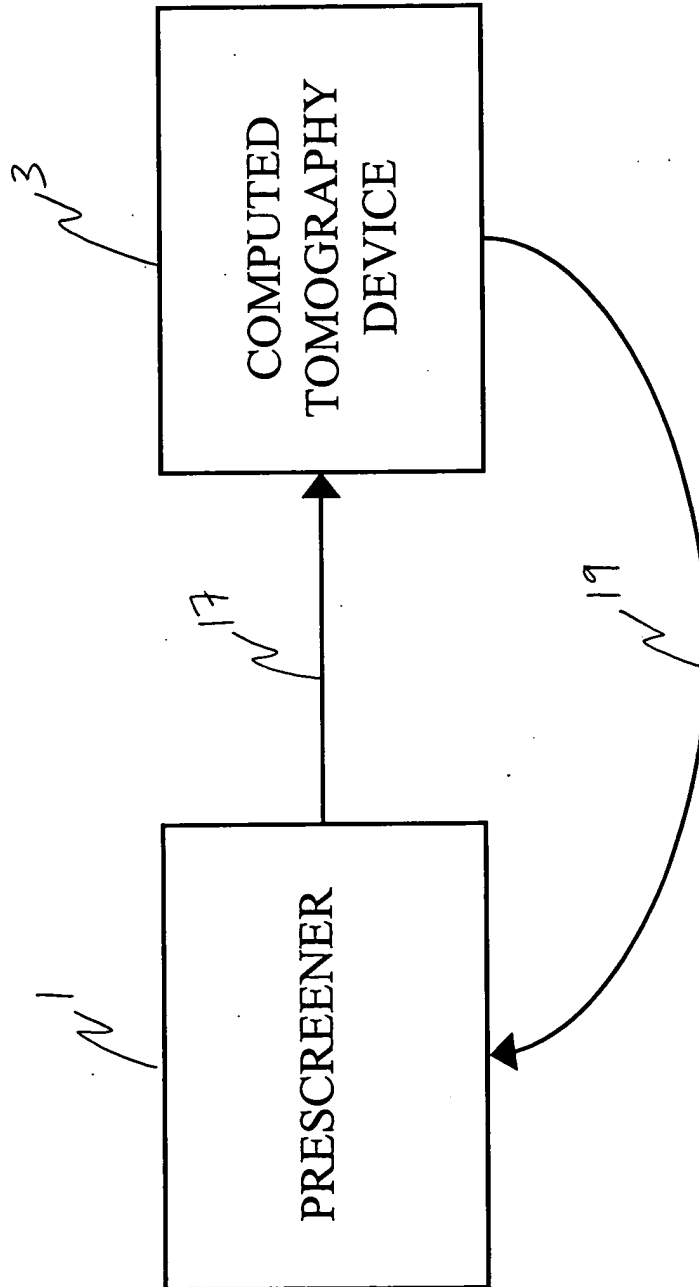


FIGURE 3

2020020" 6548900T

Figure 4

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graph TD
    20{{Load Bag Into Machine}} --> 21[Scan and Analyze Bag Using Dual Energy Prescreener]
    21 --> 23[/Generate Table A containing Zeff, Mass and Confidence Levels for All Objects/]
    21 --> 25[Generate List of Objects Warranting Further Study and Their Locations]
    23 --> 25
    25 --> 27{Make Decision}
    27 -- yes --> 27a([Take Appropriate Action  
Move Bag Out of Machine, Reconcile With Passenger, call Bomb Squad ...etc])
    27 -- no --> 29{Are there any objects (or regions) that require further investigation?}
    29 -- yes --> 31[Move Bag to Location and Acquire CT Image]
    29 -- no --> 27
    31 --> 33{Is there metal in the vicinity of the Interesting Object?}
    33 -- yes --> 35[Predict Metal Artifacts and Correct the CT Image]
    33 -- no --> 37[Analyze CT Image]
    35 --> 35
    35 --> 37
    37 --> 39[/Generate Table B containing Densities, Areas, confidences and 3D locations for target objects/]
    39 --> 41[Update Zeff and Mass Using exact 3D Position]
    39 --> 37a[Update CT Slice Location List]
    37a --> 27
    41 --> 39
    41 --> 35
    35 -.-> 35
    35 -.-> 37
    39 -.-> 27
    39 -.-> 29
```

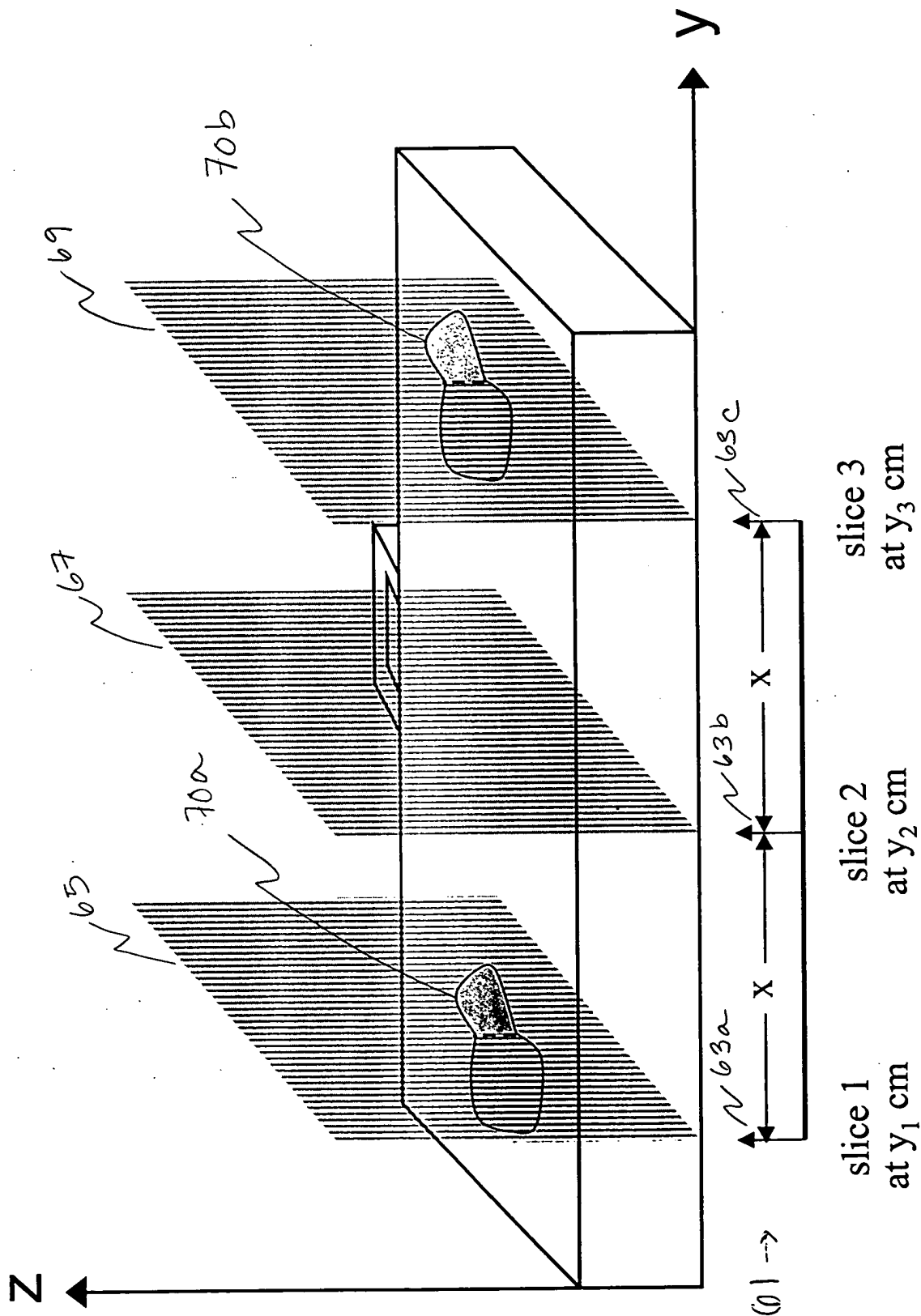


FIGURE 5

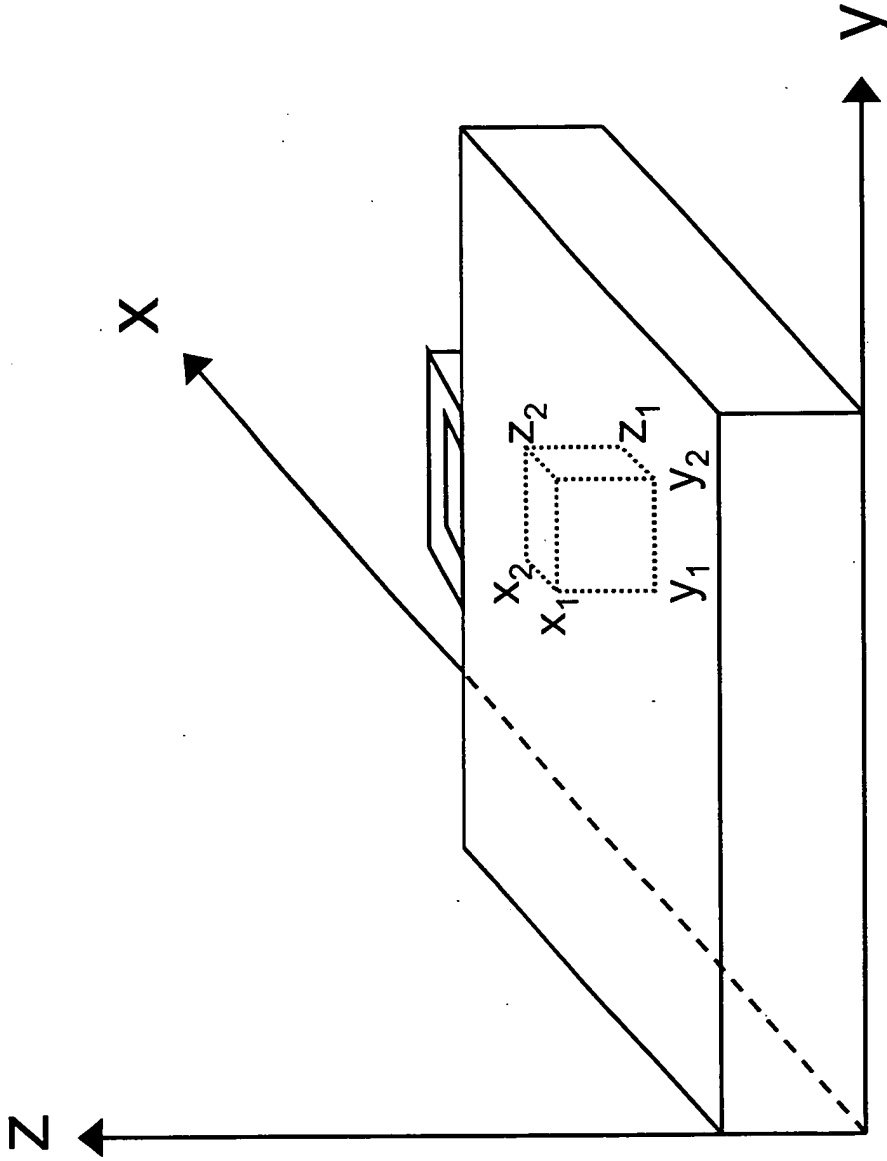


FIGURE 6

205020" 55489001

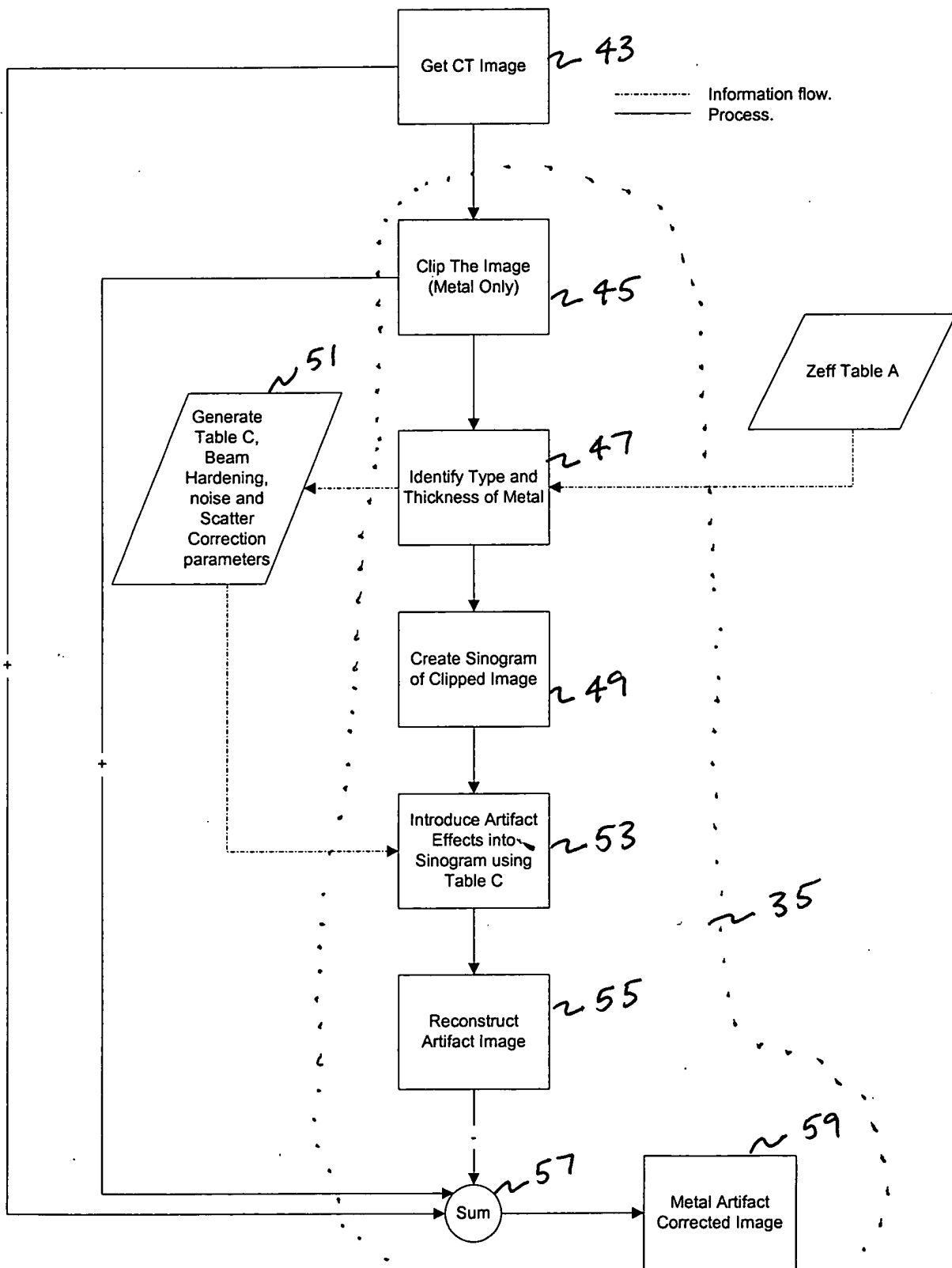


Figure 7

10068459.020602